[10191/3673]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:	Examiner: Trevor McGraw
Ian FAYE et al.	
For: DOSING DEVICE	
Filed: April 12, 2006	Art Unit: 3752
Serial No.: 10/534,108	

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office via the Office electronic filing system on ***July 14, 2008***.

Signature: /Elizabeth Tretter/
Elizabeth Tretter

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF TRANSMITTAL

SIR:

Transmitted herewith for filing in the above-identified patent application, please find an Appeal Brief pursuant to 37 C.F.R. § 41.37. A two-month period to respond to the Notice of Appeal filed May 12, 2008 expires on July 14, 2008 (July 12, 2008 falls on a Saturday).

The **$510** Appeal Brief fee is being **paid by credit card**.

The Commissioner is also authorized to charge payment of any additional fees or to credit any overpayment, to the Deposit Account of Kenyon & Kenyon LLP, Deposit Account No. **11–0600.**

Respectfully submitted,

Dated: July 14, 2008

By: /Clifford A. Ulrich/ (Reg. No. 42,194) for:
Gerard A. Messina
Reg. No. 35,952

KENYON & KENYON LLP
One Broadway
New York, New York 10004
(212) 425-7200
CUSTOMER NO. 26646

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APPEAL BRIEF PURSUANT TO 37 C.F.R. § 41.37

SIR:

On May 6, 2008, Appellants submitted a Notice of Appeal from the last decision of the Examiner contained in the Final Office Action dated January 10, 2008 in the above-identified patent application. The Notice of Appeal is believed to have been received by the United States Patent and Trademark Office on May 12, 2008.

In accordance with 37 C.F.R. § 41.37, this brief is submitted in support of the appeal of the rejections of claims 19 to 26, 28, 29, and 36 to 39. For at least the reasons set forth below, the final rejections of claims 19 to 26, 28, 29, and 36 to 39 should be reversed.

1. REAL PARTY IN INTEREST

The real party in interest in the present appeal is ROBERT BOSCH GmbH of Stuttgart in the Federal Republic of Germany, which is the assignee of the entire right, title and interest in and to the present application.

2. RELATED APPEALS AND INTERFERENCES

There are no other prior or pending appeals, interferences or judicial proceedings known by the undersigned, or believed by the undersigned to be known to

Appellants or the assignee, ROBERT BOSCH GmbH, "which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal."

3. STATUS OF CLAIMS

Claims 1 to 18, and 30 have been canceled.

Claims 27, and 31 to 35 have been withdrawn from consideration.

Claims 19 to 26, 28, 29, and 36 to 39 are pending and being considered.

Claims 19, 20, 22 to 26, 28, 29, 36, and 38 stand rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 2,933,259 ("Raskin").

Claim 19, 21, and 37 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Raskin and U.S. Patent No. 6,311,950 ("Kappel et al.").

While the Final Office Action included a rejection of claim 39 under the first paragraph of 35 U.S.C. § 112 as failing to comply with the written description requirement, the Advisory Action dated April 4, 2008 states that the showing of support regarding this rejection included in the "Reply Under 37 C.F.R. § 1.116" submitted on March 4, 2008 has overcome this rejection. As such, it is believed that this rejection has been effectively withdrawn.

A copy of the appealed claims, *i.e.*, claims 19 to 26, 28, 29, and 36 to 39, is attached hereto in the Claims Appendix.

4. STATUS OF AMENDMENTS

In response to the Final Office Action dated January 10, 2008, Appellants submitted a "Reply Under 37 C.F.R. § 1.116" ("the Reply") on March 4, 2008. The Reply included proposed amendments to claim 19. The Advisory Action dated April 4, 2008 indicates that the proposed claim amendments would be entered. As such, it is Appellants' understanding that the proposed claim amendments have been entered, and the claims as included in the annexed "Claims Appendix" reflects entry of the proposed claim amendments.

5. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 19 relates to a dosing device 1 for a liquid fuel. *Substitute Specification*, page 8, lines 6 to 13, and Figure 1. Claim 19 recites that the dosing device 1 includes at least one metering device 2 configured to meter fuel into a metering conduit 12.

Substitute Specification, page 8, lines 15 to 28, and Figure 1. Claim 19 recites that the dosing device 1 includes a nozzle body 7, adjoining the metering conduit 12. *Substitute Specification*, page 8, line 30 to page 9, line 4, and Figure 1. Claim 19 recites that the nozzle body 7 includes spray discharge openings 6 which provide direct fluid communication between the metering conduit 12 and a metering chamber 10. *Substitute Specification*, page 9, lines 6 to 10, and lines 28 to 32, and Figures 1 to 5. Claim 19 recites that the nozzle body 7 projects with a spherical portion at a spray-discharge end into the metering chamber 10. *Substitute Specification*, page 9, lines 6 to 10, and Figures 1 to 5. Claim 19 recites that the spray discharge openings 6 are distributed over the spherical portion of the nozzle body 7. *Substitute Specification*, page 9, lines 10 to 16, and Figures 1 to 4. Claim 19 recites that the metering conduit 12 has a number of points of reduced wall thickness that decrease the thermal conductivity of the metering conduit 12. *Substitute Specification*, page 6, lines 9 to 11.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Whether claims 19, 20, 22 to 26, 28, 29, 36, and 38 are anticipated under 35 U.S.C. § 102(b) by Raskin.

B. Whether claims 19, 21, and 37 are patentable under 35 U.S.C. § 103(a) over the combination of Raskin and Kappel et al.

7. ARGUMENT

A. Rejection of Claims 19, 20, 22 to 26, 28, 29, 36, and 38 Under 35 U.S.C. § 102(b)

Claims 19, 20, 22 to 26, 28, 29, 36, and 38 stand rejected under 35 U.S.C. § 102(b) as anticipated by Raskin. It is respectfully submitted that Raskin does not anticipate the present claims for at least the following reasons.

To anticipate a claim, each and every element as set forth in the claim must be found in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of Calif., 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). That is, the prior art must describe the elements arranged as required by the claims. In re Bond, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990).

As set forth above, claim 19 relates to a dosing device that includes, *inter alia*, a nozzle body, adjoining the metering conduit, having spray discharge openings which

provide direct fluid communication between the metering conduit and a metering chamber, in which the metering conduit has a number of points of reduced wall thickness that decrease the thermal conductivity of the metering conduit.

Raskin does not identically disclose, or even suggest, that a nozzle body adjoining a metering conduit has spray discharge openings which provide direct fluid communication between the metering conduit and a metering chamber. Specifically, the inner element 19 of Raskin appears analogous to a nozzle body of the present application, the inner pipe 4 of Raskin appears analogous to a metering conduit of the present application, and the exterior of the outer element 20 (opposite inner element 19) of Raskin appears analogous to a metering chamber of the present application. Thus, the bores 21 of the inner element 19 of Raskin appear analogous to spray discharge openings of the present application. (Raskin, col. 4, lines 13 to 32; and Figures 1 and 4). As a result, referring to, for example, Figure 4 of Raskin, bores 21 (spray discharge openings) merely provide fluid communication between the inner pipe 4 (metering conduit) and the gap 24, but the bores 21 (spray discharge openings) plainly do not provide direct fluid communication between the inner pipe 4 (metering conduit) and the exterior of the outer element 20 (metering chamber). Therefore, it is plainly apparent that the bores 21 of Raskin do not provide ***direct fluid communication*** between the metering conduit and a metering chamber, as provided for in the context of claim 19.

The Final Office Action appears to focus on whether the fluid flow direction is "unobstructed" or "unhindered." (Final Office Action, pp. 5 and 6). However, claim 19 does not refer to such features, but instead discloses a nozzle body adjoining a metering conduit having spray discharge openings which provide direct fluid communication between the metering conduit and a metering chamber. Therefore, it is respectfully submitted that Raskin does not identically disclose, or even suggest, that ***a nozzle body adjoining a metering conduit has spray discharge openings which provide direct fluid communication between the metering conduit and a metering chamber***.

In addition, Raskin does not identically disclose, or even suggest, that a metering conduit has a number of points of reduced wall thickness that decrease the thermal conductivity of the metering conduit. The Final Office Action contends that "[i]n viewing Figure 4 of Raskin, one can clearly see that reference number '19' has a number of points of reduced wall thickness." (Final Office Action, p. 6). It is respectfully submitted that inner element 19 of Raskin does not constitute to a metering conduit in the present context. At most, inner element 19 of Raskin may correspond to a nozzle body. Further, Raskin states

that "inner member 19 is connected to a steam or air supply pipe (not shown)." (Raskin, col. 4, lines 23 to 24). It is respectfully submitted that this supply pipe may correspond to a metering conduit, but the supply pipe is neither shown nor further described. Referring to Figure 1 of Raskin, inner pipe 4 may be analogous to the supply pipe referred to in Figure 4. However, the wall thickness of inner pipe 4 appears to be ***substantially constant*** along the length of inner pipe 4. Thus, it is plainly apparent that neither the inner pipe 4 nor the supply pipe, which is neither shown nor described, of Raskin has a number of points of reduced wall thickness, as provided for in the context of claim 19. Therefore, Raskin does not identically disclose, or even suggest, that ***a metering conduit has a number of points of reduced wall thickness*** *that decrease the thermal conductivity of the metering conduit.*

In view of the foregoing, it is respectfully submitted that Raskin does not identically disclose, or even suggest, all of the features included in claim 19. Accordingly, it is respectfully submitted that Raskin does not anticipate claim 19.

As for claims 20, 22 to 26, 28, 29, 36, and 38, which ultimately depend from claim 19 and therefore include all of the features in claim 19, it is respectfully submitted that Raskin does not anticipate these dependent claims for at least the same reasons more fully set forth above.

In view of all of the foregoing, reversal of this rejection is respectfully requested.

B. Rejection of Claims 19, 21, and 37 Under 35 U.S.C. § 103(a)

Claims 19, 21, and 37 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Raskin and Kappel et al. It is respectfully submitted that the combination of Raskin and Kappel et al. does not render unpatentable claims 19, 21, and 37 for at least the following reasons.

In order for a claim to be rejected for obviousness under 35 U.S.C. § 103(a), the prior art must teach or suggest each element of the claim. See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990), cert. denied, 111 S. Ct. 296 (1990); In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990). In addition, as clearly indicated by the Supreme Court, it is "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed. See KSR Int'l Co. v. Teleflex, Inc., 127 S. Ct. 1727 (2007). Further, the Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. M.P.E.P. §2143.

As more fully set forth above, Raskin does not disclose, or even suggest, all of the features recited in claim 19. Kappel et al. are not relied upon for disclosing or suggesting the features of claim 19 not disclosed or suggested by Raskin. Indeed, it is respectfully submitted that Kappel et al. do not disclose, or even suggest, the features of claim 19 not disclosed or suggested by Raskin and do not cure the critical deficiencies noted above with respect to Raskin. Therefore, it is respectfully submitted that the combination of Raskin and Kappel et al. does not render unpatentable claim 19.

Claims 21 and 37 ultimately depend from claim 19 and therefore include all of the features recited in claim 19. As more fully set forth above, the combination of Raskin and Kappel et al. does not disclose, or even suggest, all of the features recited in claim 19, from which claims 21 and 37 ultimately depend, and does not render unpatentable claim 19. Therefore, it is respectfully submitted that the combination of Raskin and Kappel et al. does not render unpatentable claims 21 and 37, which ultimately depend from claim 19. *In re Fine, supra* (any dependent claim that depends from a non-obvious independent claim is non-obvious).

In view of all of the foregoing, reversal of this rejection is respectfully requested.

8. CLAIMS APPENDIX

A "Claims Appendix" is attached hereto and appears on the two (2) pages numbered "Claims Appendix 1" to "Claims Appendix 2."

9. EVIDENCE APPENDIX

No evidence has been submitted pursuant to 37 C.F.R. §§ 1.130, 1.131 or 1.132. No other evidence has been entered by the Examiner or relied upon by Appellants in the appeal. An "Evidence Appendix" is nevertheless attached hereto and appears on the one (1) page numbered "Evidence Appendix."

10. RELATED PROCEEDINGS APPENDIX

As indicated above in Section 2, "[t]here are no other prior or pending appeals, interferences or judicial proceedings known by the undersigned, or believed by the undersigned to be known to Appellants or the assignee, ROBERT BOSCH GmbH, 'which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.'" As such, there are no "decisions rendered by a court or the

Board in any proceeding identified pursuant to [37 C.F.R. § 41.37(c)(1)(ii)]" to be submitted. A "Related Proceedings Appendix" is nevertheless attached hereto and appears on the one (1) page numbered "Related Proceedings Appendix."

11. CONCLUSION

For at least the reasons indicated above, Appellants respectfully submit that the art of record does not disclose or suggest the subject matter as recited in the claims of the above-identified application. Accordingly, it is respectfully submitted that the subject matter as set forth in the claims of the present application is patentable.

In view of all of the foregoing, reversal of all of the rejections set forth in the Final Office Action is therefore respectfully requested.

Respectfully submitted,

Dated: July 14, 2008

By: /Clifford A. Ulrich/ (Reg. No. 42,194) for:
Gerard A. Messina
Reg. No. 35,952

KENYON & KENYON LLP
One Broadway
New York, New York 10004
(212) 425-7200
CUSTOMER NO. 26646

CLAIMS APPENDIX

19. A dosing device for a liquid fuel comprising:

at least one metering device configured to meter fuel into a metering conduit; and

a nozzle body, adjoining the metering conduit, having spray discharge openings which provide direct fluid communication between the metering conduit and a metering chamber,

wherein the nozzle body projects with a spherical portion at a spray-discharge end into the metering chamber, and the spray discharge openings are distributed over the spherical portion of the nozzle body; and

wherein the metering conduit has a number of points of reduced wall thickness that decrease the thermal conductivity of the metering conduit.

20. The dosing device of claim 19, wherein the nozzle body is shaped in hollow-cylindrical fashion at an end facing the metering conduit.

21. The dosing device of claim 19, wherein the nozzle body is one of (a) sealingly thread-joined and (b) welded to the metering conduit.

22. The dosing device of claim 19, wherein the spray discharge openings have different diameters.

23. The dosing device of claim 19, wherein center axes of the spray discharge openings have a common intersection point.

24. The dosing device of claim 23, wherein the common intersection point is located on a center axis of the nozzle body.

25. The dosing device of claim 19, wherein a location of the spray discharge openings is asymmetrical with respect to a center axis of the nozzle body.

26. The dosing device of claim 23, wherein a tilt of the center axes of the spray discharge openings is asymmetrical with respect to a center axis of the nozzle body.

28. The dosing device of claim 19, wherein the at least one metering device is a fuel injection valve.

29. The dosing device of claim 28, wherein the fuel injection valve is a low-pressure fuel injection valve configured to operate with fuel pressures of up to 10 bar.

36. The dosing device of claim 19, wherein the dosing device has an air inlet with which a gas is introduceable into the metering conduit.

37. The dosing device of claim 21, wherein the nozzle body is laser welded to the metering conduit.

38. The dosing device of claim 19, wherein the dosing device is adapted to input the liquid fuel into a chemical reformer to recover hydrogen.

39. The dosing device of claim 19, wherein the spray discharge openings are arranged on the spherical portion of the nozzle body in such a manner, that two approximately semicircular line segments on an outer surface of the spherical portion together intersect center axes of all of the spray discharge openings and intersect each other at a nozzle body axis, and when the metering conduit is viewed from a nozzle-body-side end, the two approximately semicircular segments are approximately perpendicular to one another.

EVIDENCE APPENDIX

No evidence has been submitted pursuant to 37 C.F.R. §§1.130, 1.131, or 1.132. No other evidence has been entered by the Examiner or relied upon by Appellants in the appeal.

RELATED PROCEEDINGS APPENDIX

As indicated above in Section 2 of this Appeal Brief, "[t]here are no other prior or pending appeals, interferences or judicial proceedings known by the undersigned, or believed by the undersigned to be known to Appellants or the assignee, ROBERT BOSCH GmbH, 'which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.'" As such, there are no "decisions rendered by a court or the Board in any proceeding identified pursuant to [37 C.F.R. § 41.37(c)(1)(ii)]" to be submitted.